

**CLAIMS**

1- Method to secure the execution of a program in an electronic assembly including data processing means and data storage means, characterised in that it consists in checking the execution of each instruction of at least one portion of said program by performing during the execution of said portion a calculation using predetermined values, depending on or associated with each of said instructions and by comparing the result obtained with a precalculated value.

2- Method according to claim 1, characterised in that the values depending on each of said instructions are values which depend on the content, type, function, result and/or any characteristic attached to said instructions as such.

3- Method according to claim 1 or 2, characterised in that it consists in performing the calculation of a checksum on the content of said instructions.

4- Method according to claim 1 to 2, characterised in that it consists in incrementing a counter when executing said portion, by a value depending on or associated with each of said executed instructions.

5- Method according to one of claims 1 to 4, characterised in that it consists in defining instruction classes for which the value associated with each of said instructions of said class is identical.

6- Electronic module including data processing means and data storage means containing a program to be executed, characterised in that the processing means include means to check the execution of each instruction in at least one portion of said program by performing during the execution of said portion a calculation using predetermined values, depending on or associated with each of said instructions and by comparing the result obtained with a precalculated value.

7- Module according to claim 6, characterised in that said means comprise

a processor which has special instructions or modified instructions of known type to take into account the precalculated value for each new code portion and make the comparison.

5           8- Module according to claim 6, characterised in that the calculation performed is made available to a software module performing the comparison.

9- Module according to one of claims 6 to 8, characterised in that said means comprise a counter associated with said portion.

10           10- Card characterised in that it comprises the electronic module according to one of claims 6 to 9.

11- Computer program comprising program code instructions to execute the steps of the method according to one of claims 1 to 5 when said program is run in an electronic assembly.